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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Anne Farbrot et al.

Application No.: 10/800,176

Filed: March 12, 2004

For: CARRIER FOR ADDITIVE IN AN
ABSORBENT ARTICLE

) **Mail Stop:**

) **APPEAL BRIEF - PATENTS**

) Group Art Unit: 3761

) Examiner: MICHAEL G BOGART

) Confirmation No.: 8607

) Appeal No.: 1

APPEAL BRIEF

Mail Stop APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This appeal is from the Advisory Action issued March 26, 2007, and the Final Office Action issued on December 5, 2006, finally rejecting claims 1-18, and which are reproduced as the Claims Appendix of this brief.

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The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

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I. Real Party in Interest

The present application is assigned to SCA Hygiene Products AB, which is the real party in interest.

II. Related Appeals and Interferences

Appellant's legal representative and assignee are not aware of another appeal or interference which may affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of Claims

Claims 1-18 are pending, rejected and presently appealed. A copy of the claims involved in the appeal is contained in an attached Claims Appendix.

IV. Status of Amendments

No amendments have been filed subsequent to the final rejection of December 5, 2006.

V. Summary of Claimed Subject Matter

The presently claimed invention (Claim 1) relates to an absorbent article. See paragraph [0002] and Figs. 1a-1g, #102. The absorbent article is intended to be positioned in the crotch area of a wearer. See paragraph [0013]. The absorbent article has a surface intended during use to be in contact with skin and/or mucous membranes. See paragraph [0041] and Figs. 1a-1g, #103. The absorbent article comprises at least one absorbent body. See paragraph [0040] and Fig. 2, #205. The absorbent article comprises a carrier. See paragraph [0031] and Figs. 1a-1g, #102. The carrier contains at least one additive intended to be released from the carrier. See paragraph [0031]. The carrier comprises a polysiloxane gel. See paragraph [0031]. The polysiloxane gel is a structure in which polysiloxanes are cross-linked and form a three-dimensional network which is swollen in a hydrophobic substance, or a substance where the greater part is hydrophobic, and forms an oil gel. See paragraph [0014].

The presently claimed invention (Claim 16) relates to a method of providing an additive to an absorbent article. See, for example, paragraph [0041]. The

method comprises providing a polysiloxane gel with an additive. See paragraph [0031]. The method comprises attaching the polysiloxane gel to an absorbent article. See paragraph [0031]. The article is intended to be positioned in the crotch area of a wearer. See paragraph [0013]. The additive is arranged so as to be released from the polysiloxane gel during use of the absorbent article. See paragraph [0031]. The polysiloxane gel is a structure in which polysiloxanes are cross-linked and form a three-dimensional network which is swollen in a hydrophobic substance, or a substance where the greater part is hydrophobic, and forms an oil gel. See paragraph [0014].

Embodiments of the invention provide an effective system for storing and releasing additives. Embodiments of the invention provide a solution to the problem of storing sensitive additives in an absorbent product. Embodiments of the invention are particularly suitable with regard to being capable of storing additives which are sensitive to moisture. Embodiments of the invention also contribute to reduced migration of additives into the absorbent article during storage and use and in this way make possible effective benefit from the additive. Embodiments of the invention also aim to offer controlled release of the additive during use. In embodiments of the invention, these problems are solved by using a carrier which comprises a polysiloxane gel. See [0013].

Depending on which type of additive is to be released, and the chemical and physical properties the additive has, the gel can be formed and tailored for specific requirements. See [0021].

By using a polysiloxane carrier, a considerable improvement is achieved in the storage of water-sensitive additives as polysiloxane provides an effective moisture barrier during storage. The polysiloxane gel can also function as protection against oxygen in the air by virtue of the fact that the polysiloxane is swollen in a hydrophobic liquid which reduces the air-permeability. Another advantage of using a polysiloxane gel as a carrier is that it is relatively temperature-insensitive and can preserve the additive at temperatures which lie well above normal room temperature, which are not infrequent during the transport or storage of absorbent articles. The polysiloxane gel is also elastic and therefore resistant to mechanical breaking or stretching forces. Furthermore, its elastic properties can be utilized in order to replace or supplement other elastic in the article and in this way achieve the

desired elastic properties in the article. See [0023].

VI. Grounds of Rejection to be Reviewed on Appeal

Claims 1-4, 6-12, 14-16 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Roe (USPN 5,635,191) in view of Lin (USPN 6,168,782).

Claims 5 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Roe in view of Lin and further in view of Runeman (USPN 6,187,990).

Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Roe in view of Lin and further in view of Muckenfuhs (USPN 4,934,535).

VII. Argument

Claims 1-4, 6-12, 14-16 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Roe (USPN 5,635,191) in view of Lin (USPN 6,168,782). Appellants respectfully traverse this rejection.

The Office asserts Roe as a primary reference. Roe allegedly teaches a lotion composition that comprises: (1) an emollient(s); (2) an immobilizing agent(s) for the emollient; (3) optionally a hydrophilic surfactant(s); and (4) other optional components. See Column 10, lines 15-18.

Roe is clear that the "emollient is a material that softens, soothes, supplies, coats, lubricates, moisturizes or cleanses the skin." See Column 10, lines 34-36. Further, the lotion coating, and the emollient in particular, must be transferable to the wearer's skin. See Column 2, lines 46-50. The emollient "allows the lotion composition to impart a soft, lubricious, lotion-like feel." See Column 10, lines 41-42.

Thus, as an exemplary emollient, Roe teaches the use of a polysiloxane emollient. The polysiloxane emollient of Roe (allegedly) has "soothing, moisturizing, and lubricating" effects on the skin as the polysiloxane emollient of Roe is made of linear polysiloxanes and has the same structure of oil or cream. The purpose of the polysiloxane emollient of Roe is for it to be transferred to the user's skin.

And, as the Office admits, Roe does not teach or suggest a polysiloxane gel that is a structure in which polysiloxanes are cross-linked and form a three-

dimensional network which is swollen in a hydrophobic substance, or a substance where the greater part is hydrophobic, and forms an oil gel.

The Office attempts to remedy this deficiency by alleging that one skilled in the art would have substituted the polysiloxane emollient of Roe with an elastomeric silicone of Lin. Applicants respectfully traverse this assertion.

One skilled in the art would not substitute the elastomeric silicon of Lin for the polysiloxane emollient of Roe.

The elastomeric silicone of Lin has a cross-linked three-dimensional network and functions as a relatively rigid structure for containing a hydrophobic structure comprising an additive. The additive is transferred to the skin, but the elastomeric silicone of Lin will stay on the absorbent article. Further, if any of the elastomeric silicone of Lin were to be incidentally transferred to the user's skin, it will not have "soothing, moisturizing, and lubricating" effects on the skin.

The elastomeric silicone of Lin is substantially different in structure and effect from the polysiloxane emollient of Roe. The purpose of the polysiloxane emollient of Roe is to be transferred to the skin to then have "soothing, moisturizing, and lubricating" effects on the skin. The purpose of the elastomeric silicone of Lin is to not transfer to the skin and it does not have "soothing, moisturizing, and lubricating" effects on the skin. Thus, one skilled in the art would not be motivated to substitute the polysiloxane emollient of Roe with an elastomeric silicone of Lin.

Moreover, Roe teaches that the lotion has an immobilizing agent with the polysiloxane emollient. The immobilizing agent is used in order to counteract the tendency of the emollient to migrate from the surface of the diaper into the core. The emollient, as discussed above, is used for its "soothing, moisturizing, and lubricating" effects on the skin.

The purpose, according to Roe, is to have a lotion which is semisolid or solid at ambient temperatures, yet lotion that will transfer to the wearer's skin during use at skin temperatures in order to reduce the adherence of bowel movements (BM) and, at the same time, keep the lotion from negatively affecting the absorbency of the diaper. Roe has struck a key balance of using a polysiloxane emollient that is made of linear polysiloxanes having the same structure of oil or cream and an immobilizing agent. Roe characterizes the immobilizing agent as "an especially key component of the lotion". Column 13, lines 5-8. The immobilizing agent is key

because Roe teaches the linear polysiloxanes that transfer to the skin having "soothing, moisturizing, and lubricating" effects thereon.

One skilled in the art would not substitute the elastomeric silicone of Lin that has a cross-linked three-dimensional network and functions as a relatively rigid structure for containing a hydrophobic structure comprising an additive. The additive is transferred to the skin, but the elastomeric silicone of Lin will stay on the absorbent article. One skilled in the art would recognize that the elastomeric silicone of Lin would function against the principles of Roe. Further, one skilled in the art would recognize that Roe has addressed any mobility/migration issues by requiring the key component of an immobilizing agent. There is no problem or issue to be solved by using the elastomeric silicone of Lin. The change to the elastomeric silicone of Lin would lead to an immobilizing agent mixed with an (already immobile) elastomeric silicone which will not properly function to have the desired effect of transferring to the skin to reduce BM adherence while soothing, moisturizing, and lubricating the skin.

Accordingly, the combination of Roe in view of Lin does not teach or suggest the presently claimed invention.

Conclusion - Claim 1

Accordingly, Appellants respectfully request that the rejection of claims 1-4, 6-12, 14-16 and 18 be withdrawn.

Dependent Claims - Further Art Rejections

Claims 5 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Roe in view of Lin and further in view of Runeman (USPN 6,187,990).

Claims 5 and 17 depend from claim 1 and are at least patentable for the reasons discussed above.

Runeman does not remedy the deficiencies of Roe in view of Lin.

Accordingly, Appellants respectfully request that the rejection of claims 5 and 17 be withdrawn.

Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Roe in view of Lin and further in view of Muckenfuhs (USPN 4,934,535).

Claim 13 depends from claim 1 and is at least patentable for the reasons discussed above.

Muckenfuhs does not remedy the deficiencies of Roe in view of Lin.


Accordingly, Appellants respectfully request that the rejection of claim 13 be withdrawn.

Conclusion

Appellants respectfully request that the outstanding rejections be withdrawn and the presently claimed invention be indicated allowable.

Respectfully submitted,
Buchanan Ingersoll & Rooney PC

Date June 5, 2007

By: 
Travis D. Boone
Registration No. 52,635

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620

VIII. CLAIMS APPENDIX

The Appealed Claims

1. (Previously Presented) An absorbent article, which article is intended to be positioned in the crotch area of a wearer and has a surface intended during use to be in contact with skin and/or mucous membranes and which comprises at least one absorbent body and a carrier containing at least one additive intended to be released from the carrier, wherein the carrier comprises a polysiloxane gel, wherein the polysiloxane gel is a structure in which polysiloxanes are cross-linked and form a three-dimensional network which is swollen in a hydrophobic substance, or a substance where the greater part is hydrophobic, and forms an oil gel.
2. (Original) Absorbent article according to Claim 1, wherein the carrier has an extent in the X-Y plane of the absorbent body which constitutes less than 30% of the area of the absorbent body in the X-Y plane.
3. (Original) Absorbent article according to Claim 2, wherein the carrier has an extent in the X-Y plane of the absorbent body which constitutes less than 15% of the area of the absorbent body in the X-Y plane.
4. (Original) Absorbent article according to Claim 3, wherein the carrier has an extent in the X-Y plane of the absorbent body which constitutes less than 5% of the area of the absorbent body in the X-Y plane.
5. (Original) Absorbent article according to Claim 1, wherein the additive to be released comprises lactobacilli.
6. (Original) Absorbent article according to Claim 1, wherein the additive to be released comprises at least one active substance selected from: oil, lotion, anti-chafing agent, odor inhibitor, cooling agent or vegetable extract.
7. (Previously Presented) Absorbent article according to Claim 1, wherein the additive also constitutes an agent for swelling the three-dimensional polysiloxane

network.

8. (Original) Absorbent article according to Claim 1, wherein the polysiloxane gel is loosely cross-linked.

9. (Original) Absorbent article according to Claim 8, wherein the polysiloxane gel is cross-linked so that the meshes have a size of at least 1 micrometer.

10. (Original) Absorbent article according to Claim 9, wherein the degree of cross-linking of the polysiloxane gel decreases, and thus its mesh size increases, in the direction towards that surface of the gel which is intended to release the additive.

11. (Original) Absorbent article according to Claim 1, wherein the polysiloxane gel is applied to the absorbent article in the form of a net, a perforated gel, a latticed pattern or strands.

12. (Original) Absorbent article according to Claim 1, wherein the release of additive by the polysiloxane gel is activated by diffusion, pressure, heat, movement, liquid or moisture, friction forces, shear forces or a combination of these.

13. (Original) Absorbent article according to Claim 1, wherein that surface of the polysiloxane gel which faces the skin during use is covered by a detachable protective layer.

14. (Original) Absorbent article according to Claim 1, wherein the polysiloxane gel is mixed with a glue.

15. (Original) Absorbent article according to Claim 1, wherein the polysiloxane gel is intermixed with the absorbent body and/or with a surface layer or a spreading layer in the absorbent article.

16. (Previously Presented) A method of providing an additive to an absorbent article comprising providing a polysiloxane gel with an additive and attaching the

polysiloxane gel to an absorbent article, which article is intended to be positioned in the crotch area of a wearer, and wherein the additive is arranged so as to be released from the polysiloxane gel during use of the absorbent article,

wherein the polysiloxane gel is a structure in which polysiloxanes are cross-linked and form a three-dimensional network which is swollen in a hydrophobic substance, or a substance where the greater part is hydrophobic, and forms an oil gel.

17. (Original) Absorbent article according to Claim 2, wherein the additive to be released comprises lactobacilli.

18. (Original) Absorbent article according to Claim 1, comprising a sanitary towel, panty liners, a tampon or an incontinence pad.

IX. EVIDENCE APPENDIX

None

X. RELATED PROCEEDINGS APPENDIX

None